March 30, 2011

Via ECFS

Marlene Dortch, Secretary
Federal Communications Commission
445 12th Street NW
Washington, DC 20554

RE: Notice of Ex parte, Dockets WC 10-90, GN 09-51, WC 07-135, WC 05-337, CC 01-92, CC 96-45, WC 03-109

Dear Ms. Dortch,

David Frankel, CEO of ZipDX LLC had a telephonic meeting with the following individuals in the Wireline Competition Bureau on March 30:

Doug Slotten, John Hunter, Travis Litman, Victoria Goldberg, Jennifer Prime, Randy Clarke

The discussion was driven by the attached slides.

Regards,

/s/
David Frankel
CEO, ZipDX LLC
Los Gatos, California
1-800-372-6535 / dfrankel@zipdx.com

cc: Meeting Participants, via E-mail

# Agenda

- ZipDX Intro
- Access Stimulation
- Phantom Traffic
- VoIP
- Longer-Term ICC Reform

# ZipDX Introduction

- ZipDX is an innovative provider of real-time electronic collaboration services
- Audio-centric info services via PSTN and VoIP
- Patented ease-of-use & security features
- We pay access charges via our carrier partners
  - Toll-free 8YY inbound calls, and outbound PSTN calls
- We use VoIP for some connections
- We compete with “free conferencing” services
- We make extensive use of CPN info
- Happy to see this NPRM published & moving

# Access Stimulation

- ZipDX is generally supportive of the approach in the NPRM
- We would like to see the order augmented to address issues that have been discussed in the record and are mentioned in the NPRM, but omitted from the order
- 8YY Traffic
  - Analogous to conventional calls, but some elements are reversed
  - The ORIGINATING Carrier assesses the Access Charge and determines initial routing
  - Originating Carrier also assesses a “dip charge”
  - Manipulation of routes and elements results in inflated charges
- Treatment of individual Rate Elements
  - Focus is terminating switched access, but tandem and mileage charges are also subject to gaming
- “Most Cost Routing”
  - Historically, the industry has used “least cost routing” to find the most efficient, lowest cost path for a call
  - Now, some carriers work to find the MOST EXPENSIVE route and force others to pay for it
    - Insert unnecessary elements into call path (e.g., tandem switch)
    - Direct call delivery to a distance location; assess mileage to “haul” it back
    - Route call to a region where higher access charges prevail
  - This is despicable!

# Access Stimulation Revisions

- Proposed “Access revenue sharing” definition is circular (contains “Access revenue sharing”). Change to:

  1. Access revenue sharing occurs when a rate-of-return ILEC or CLEC enters in an agreement with another party (including an affiliate) that results in the aggregate fees owed to the ILEC or CLEC by the other party DECREASING as the volume of access-fee-generating traffic attributable to that other party INCREASES (including to the point that the other party is receiving a net payment from the ILEC or CLEC).

- Discourage Most Cost Routing:

  2. Under its access tariff, a carrier will not assess more than the amount associated with the lowest-cost, technically feasible, available path to complete the call. A carrier will not assess for superfluous elements included to inflate the access charge.

  3. A carrier will not route calls, or cause calls to be routed, in a manner solely to inflate the access charges collectable from others, when a technically feasible alternate routing is available to that carrier without incurring additional cost for itself (if not for the differential access charges).

- These changes would address our concerns

  – No burden on those playing fairly

  – Consistent with existing rules and intent of regulations

  – Allows compensation for circuitous routing due to congestion or outage

# Phantom Traffic

- ZipDX is generally supportive of the approach in the NPRM
- Decades after the introduction of SS7 and CPN, there's no excuse for interstate traffic that lacks SOME sensible CPN value
  - If the originating user can't supply a proper CPN, the Carrier should insert a value appropriate for that user
  - The number should be dialable and usable by the called party to reach (or identify) the caller (or carrier)
  - Would complement recent legislation and pending rules regarding Truth in Caller-ID
  - Help to mitigate nuisance and harassment calls
- "Phantom Traffic" is a major contributor to VoIP disputes
  - Jurisdiction determines the rate
  - "Long distance" traffic disguised as "local"
  - If traffic were labeled properly, it could be appropriately rated
  - Tracking & dispute resolution would be more straightforward
- Consider defining one or more "non-geographic" (virtual) NPA-NXXs
  - Used to populate Charge Number
  - Would identify traffic whose geographic origin cannot be determined
  - Such traffic would then be subject to an agreed-upon factoring methodology
  - Factoring is routinely used for wireless calls (which often cannot be geo-located with CPN/CN)
  - Could ultimately be used to honor end-user preferences re: surveys, solicitations, etc.

# VoIP In Perspective, by the numbers

- Mobile telephony now dominates the telephony landscape
- Line Type — Count, millions — Interstate Minutes/Year
  - Wireline — 122 — 349 billion
    - Residential — 65 — 25 billion
  - VoIP — 29
    - Residential — 25
  - Mobile — 279 — 711 billion
- Of approximately 119 million US households:
  - Mobile-Only: 26.6%
  - Landline & Mobile 58.1%
    - Mobile-Mostly: 15.9%
    - Mixed Use 42.2%
  - Landline-Only 12.9%
  - Phoneless/Unknown: 2.3%

42.5% mobile-only/mostly

21.1% split use

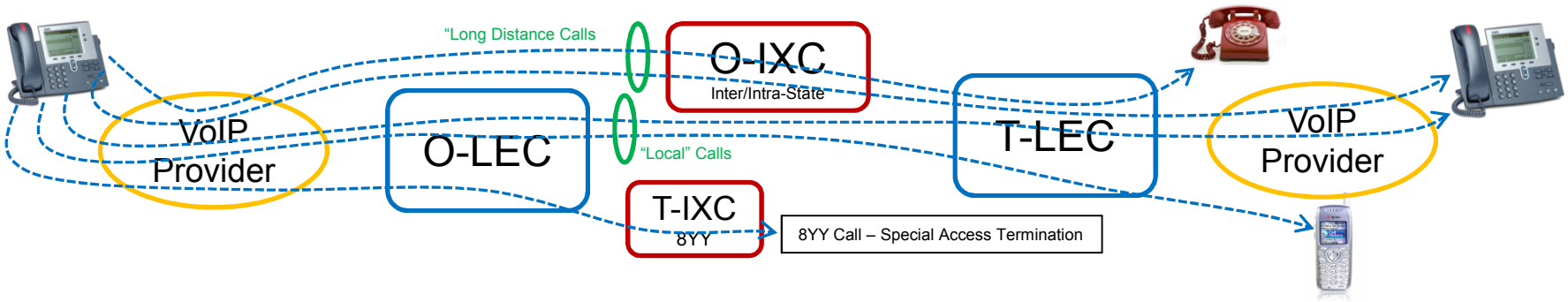
Assume half are landline-mostly*
34.0% landline-only/mostly

* CDC Question: "all or almost all calls are received on cell phones, some are received on cell phones and some on regular phones, or very few or none are received on cell phones."

- SkypeOut minutes: 12.8 billion/year (6.4B/6months) worldwide; comparable number is 2X
- Skype-to-Skype minutes: 176.8 billion/year (88.4B/6months) worldwide; 40% video; (also 2X)

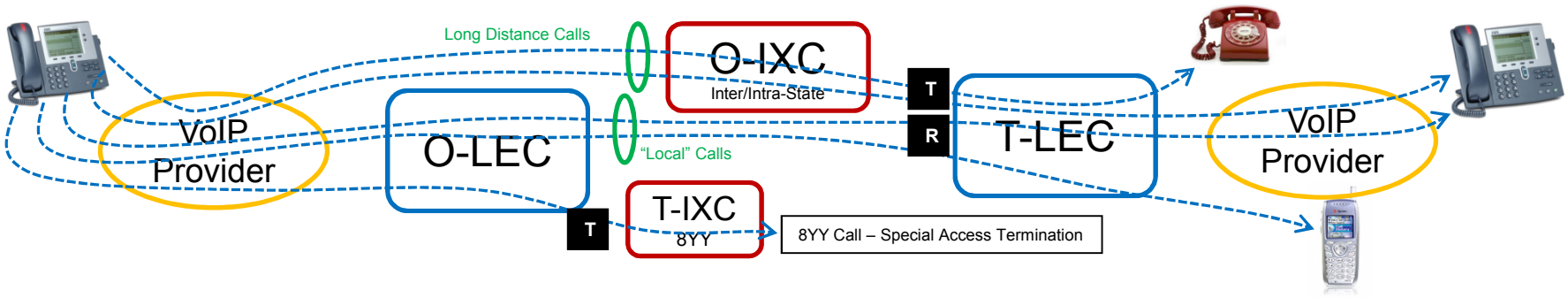
Sources:
FCC Local Telephone Competition Status as of June 30,2010
FCC Trends In Telephone Service, September 2010
CDC Wireless Substitution: Early Release Estimates January-June 2010
Lines: Local Status, Figure 1 & 2 & Table 17
Wireline Minutes: Trends, Table 10.2
Mobile Minutes: Trends, Tables 11.3 & 11.4
Residential wireline minutes calculated as 16 minutes/month * 2 (outbound/inbound adjustment) (Trends, Table 14.2)
Mobile minutes calculated as 30% of 708 minutes/month
Household data: CDC Table 1 & text
Skype: Skype S-1, August, 2010, p 82

# VoIP Calling Scenarios




- VoIP-Originated calls may or may not route through an Originating LEC partner
  - "Local" calls go through O-LEC to Terminating LEC
  - Toll-free calls go through O-LEC to the IXC associated with the dialed 8YY
  - Long-distance calls are often routed directly to a partner IXC by the VoIP provider
- The originating VoIP Provider and the O-LEC may be the same entity
- The O-LEC and the O-IXC may be the same entity
- At the terminating end, the call must route to a Terminating LEC
  - Every geographic phone number belongs to some LEC
- The picture can be slightly more complicated if there is a 3rd-party tandem

# ICC Landscape for VoIP




- "T" shows where terminating access charges might be assessed by the LEC
- "R" shows where reciprocal compensation (or bill & keep) might be in place
- An originating *carrier* should not be "exempted" from paying terminating access on "long distance" calls
  - If a carrier delivering an interstate call to another carrier is not willing to pay the interstate terminating access charge, then the terminating carrier should not be obligated to terminate it.
- CMRS LECs are prohibited from filing access tariffs; they can't *collect* ICC
  - Terminating access charges do not apply to 279 million mobile telephones
  - Outgoing calls from these lines do *pay* access charges
- To the extent that VoIP providers avoid paying access charges today, they do so by mis-labeling or mis-routing their traffic (LD becomes local)

# ICC Alternatives for VoIP

- Do not invent an entire new ICC category with a new set of rules
  - Too much administrative overhead, only to be eliminated again with broad ICC reform
- "Interconnected VoIP"
  - Seems most similar to CMRS (connectivity to PSTN using alternate access infrastructure)
  - Implementation challenge because some LECs serve both legacy and VoIP customers
  - But these LECs know which customers are in each category
  - Providers must consistently label & route calls per end-customer's telephone number rate center
- "Non-Interconnected VoIP"
  - For calls terminating to NI-VoIP, treat same as CMRS – cannot assess access charges
  - For calls originating from NI-VoIP, treat as any other outgoing call: ICC will be assessed
- For Non-Interconnected VoIP and Nomadic I-VoIP, if geographic point of origin cannot be determined, agree to use factoring (same as CMRS)
  - No NI-VoIP calls can be "local" – use Interconnected VoIP if local call rating is required
- For billing, consider an FCC-sanctioned "VoIP NPA" or similar label that could be used in SS7 CN to indicate "VoIP call of unknown geographic origin"
- Require proper routing and labeling for outgoing calls
  - Carriers serving VoIP providers must arrange with those partners for proper call identification
  - Explicitly permit terminating carriers to refuse calls that are improperly routed/labeled

# Justification for VoIP Classification

- Mobile now dominates the PSTN landscape, both in subscriptions & minutes
  - An objective should be “fewer exceptions” so add to the most popular “category”
  - We know “no access charges” is where we ultimately want to go, so start there with new modalities
- VoIP is “most like” mobile
  - Alternative access infrastructure
  - Both VoIP and CMRS are often nomadic (but not always)
  - Modern (lower cost) call “switching” & other CapEx
- ILECs must also play by these rules
  - FIOS, U-Verse, Business VoIP (hosted & “SIP Trunk” services) not eligible to assess terminating access
  - Carrier can discriminate based on customer/number, or reduce overall rates based on blended analysis
- This approach seems to have worked out for CMRS (279 million lines)
  - No disproportionate issues with nuisance calls (but regulators must remain vigilant on this potential)
- Of course providers are free to negotiate private agreements among themselves
- Appropriate corresponding rules would apply for 8YY calls
- Adjust implementation timing to minimize trauma
  - “Intercept” reformed ICC

# Broader ICC Reform

- Future goals for a PSTN
  - Promote commerce and well-being
  - Provide a reliable, ubiquitous, interoperable capability
  - Address public safety requirements
- Regulatory Motherhood
  - Eliminate implicit subsidies
  - Provide socially-mandated support explicitly & transparently
  - Allow market and technology forces to work
  - Apply the lightest possible touch
  - Avoid exclusivity and walled gardens
- Technology Motivations
  - Embrace existing, proven standards
  - Accommodate ongoing technology evolution
  - Drive efficiency, decreasing costs, increasing capabilities
  - Let bad ideas, inefficient operators, and obsolete technology die

# Broader ICC Reform

- Give up on Jurisdiction
  - It is becoming increasingly impossible to geo-locate call origination and termination points
  - The administrative burden of this is not worth the hassle
  - This notion no longer serves the public
- Abandon the notion that the “call originator” is responsible for charges
  - Once the call is established, information flows bi-directionally
  - Let the market decide how to pay for calls
- Preempt Taxes & Fees
  - 10,000 taxing authorities going after bits & bytes is insane
  - Restrict this to physical connections, not to applications
- Move to bill & keep
  - Eliminate access charges
  - Each provider pays their own way to connect

# Moving to PSTN-2

- FCC should sanction an industry working group
- Develop methodology for movement to PSTN-2
  - IP-based, with appropriate modern signaling standards
  - Retain connectivity to existing endpoints, including international interoperability
  - Emphasize reliability, robustness, scalability, quality
  - Determine role of “Public Internet” vs. private connections
  - Establish abuse deterrents
  - Drive efficiency up and costs down
  - Facilitate overlay of new services (HD Voice, Video, text, alternate addressing)